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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,063	10/02/2003	Kohei Kato	056205.50339C2	7733
23911	7590	05/04/2004	EXAMINER	
CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			THOMAS, COURTNEY D	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/676,063	Applicant(s) KATO ET AL.	
	Examiner Courtney Thomas	Art Unit 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-26 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/2/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-26 are objected to because of the following informalities:
2. Claim 1, lines 1-3 recite: “A multi-leaf collimator apparatus comprising leaf plate driving bodies each including a plurality of movable leaf plates and provided respectively on **one side and the other side** ...”
3. Examiner notes that the use of the phrase “the other side” lacks antecedent basis. The first few lines do not properly set for the structure of the device, since it is unclear what is meant by: “on one side and the other side.”
4. Claim 1, lines 3-6 continues: “... the plurality of leaf plates of said **leaf plate driver on the other side** being disposed in an opposing relation to form an irradiation field of a radiation beam between the opposing leaf plates ...”
5. Examiner notes there is no antecedent basis for the term “leaf plate driver.” Additionally it is unclear what reference point is used to determine the opposing relation as recited in the claim.
6. In claim 1, lines 7, 9, 12 and 15 Examiner suggests that “plural leaf plates” be re-written as “plurality of leaf plates” to maintain antecedence throughout the claim (see claim 1, line 3). In claim 1, line 8, Examiner suggests “... transmitting a driving force ...”
7. In claim 1, line 14, Examiner suggests the following correction: “... transmitting/cutoff device ~~said~~ and canceling engagements between a leaf plate ...”
8. For brevity, Examiner notes the aforementioned objections to claim 1 are applicable to independent claims 5, 9, 11, 15, 16, 21 and 22.

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9. As per claims 2, 3, 6, 7, 12, 13, 17, 18, 23, 24, Examiner suggests that “plural leaf plates” be re-written as “plurality of leaf plates” to maintain antecedence throughout the claims.

10. In claim 2, lines 4-9, Examiner suggest the following correction: “... said control device comprising a memory device for memorizing predetermined positions for said plurality of leaf plates respectively, inputting position information of said plurality of leaf plates detected by ~~said~~ a position detecting device and detaching a leaf plate from said leaf plate moving device at ~~the position of which said position information becomes to be a corresponding predetermined position~~ at a position that corresponds to the predetermined position by controlling said driving force transmitting/cutoff device.”

11. For brevity, Examiner notes the aforementioned objections to claim 2 are applicable to claims 6, 12, 17 and 23.

12. In claim 5, line 8, Examiner suggests the following correction: “... transmitting/cutoff device ~~being provided~~ corresponding to said ~~plural~~ plurality of leaf plates ...” This suggestion is also applicable to claim 16.

13. In claim 5, lines 9 and 10, Examiner suggests the following correction: “... ~~respectively and~~ for engaging and detaching ~~corresponding~~ said leaf plates ~~for~~ to enable said leaf plate moving device to move freely ...” This suggestion is also applicable to claim 16.

14. Examiner suggests claims 20 and 26 be re-written as follows: “... said leaf plate moving device comprises a holding device for stopping a position ~~thereof~~ of a leaf plate by attaching to said leaf plate.”

15. The pending claims have not been checked to the extent necessary to determine the presence of **all** possible minor errors. Applicant's cooperation is requested in correcting any

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errors of which applicant may become aware of in light of the Examiner's noted claim objections.

16. Appropriate correction is required.

Allowable Subject Matter

17. Claims 1-26 are allowed.

18. The following is a statement of reasons for the indication of allowable subject matter:

19. **As per claims 1, 5, 15 and 16 and dependent claims 2-4, 6-8 and 17-20**, the examiner found no reference in the prior art that disclosed or made obvious a multi-leaf collimator apparatus comprising, in combination with recited elements a) a control device for engaging a plurality of leaf plates with a leaf plate moving device by controlling a driving force transmitting/cutoff device and canceling engagements between a leaf plate arrived at a predetermined position in the plurality of leaf plates and the leaf plate moving device by controlling the driving force transmitting/cutoff device as recited in independent claims 1, 5, 15 and 16.

20. **As per claims 9, 11, 21, and 22 and dependent claims 10, 12-14 and 23-26**, the examiner found no reference in the prior art that disclosed or made obvious a medical system including an accelerator comprising, in combination with recited elements a) a control device for engaging a plurality of leaf plates with a leaf plate moving device by controlling a driving force transmitting/cutoff device and canceling engagements between a leaf plate arrived at a predetermined position in the plurality of leaf plates and the leaf plate moving device by controlling the driving force transmitting/cutoff device as recited in independent claims 19, 11, 21 and 22.

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Conclusion

21. This application is in condition for allowance except for the following formal matters:

See claim objections above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.


A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney Thomas whose telephone number is (571) 272-2496. The examiner can normally be reached on M - F (9 am - 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272 2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CT
Courtney Thomas


EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER